

ORDER NO. 2901

UNITED STATES OF AMERICA
POSTAL REGULATORY COMMISSION
WASHINGTON, DC 20268-0001

Before Commissioners:

Robert G. Taub, Acting Chairman;
Tony Hammond, Vice Chairman;
Mark Acton; and
Nanci E. Langley

Periodic Reporting
(Proposal Eleven)

Docket No. RM2016-1

ORDER ON ANALYTICAL PRINCIPLES USED IN PERIODIC REPORTING
(PROPOSAL ELEVEN)

(Issued December 18, 2015)

I. INTRODUCTION

On October 7, 2015, the Postal Service filed a petition pursuant to 39 C.F.R. § 3050.11, requesting that the Commission initiate a rulemaking proceeding to consider a proposal (Proposal Eleven) to change an analytical method approved for use in periodic reporting.¹ Proposal Eleven seeks a change in the statistical point and variance estimation methodology for the Origin Destination Information System—

¹ Petition of the United States Postal Service Requesting Initiation of a Proceeding to Consider a Proposed Change in Analytical Principles (Proposal Eleven), October 7, 2015 (Petition).

Revenue, Pieces, and Weight (ODIS-RPW)² estimates used in the “Revenue, Pieces and Weight By Class and Special Services (RPW) report relating to letter and card mailpieces that will be sampled digitally.” Petition at 3.

In Order No. 2752, the Commission initiated this rulemaking proceeding, provided for the submission of comments and reply comments, and appointed a Public Representative.³ On October 23, 2015, the Public Representative filed a motion for information request⁴ and 1 week later Chairman’s Information Request No. 1 (CHIR No. 1) was issued.⁵ The Postal Service responded to CHIR No. 1 on November 6, 2015.⁶ The Public Representative filed comments in response to Order No. 2752 on November 24, 2015.⁷ The Postal Service submitted reply comments on December 7, 2015.⁸ For the reasons discussed below, the Commission approves Proposal Eleven.

II. BACKGROUND

The Postal Service explains that the ODIS-RPW is a probability-based destinating mail sampling system used to collect mail revenue and volume information. Petition at 4. In particular, the Postal Service states that the ODIS-RPW supplies official revenue, volume, and weight estimates for single-piece stamped and metered indicia

² The Postal Service states that “[t]he ODIS-RPW system is a probability-based destinating mail sampling system used to support the Postal Service’s many and varied business needs for mail revenue and volume information. ODIS-RPW primarily supplies official RPW estimates of revenue, volume and weight for single-piece stamped and metered indicia mail.” Petition at 4.

³ Order No. 2752, Notice of Proposed Rulemaking on Analytical Principles Used in Periodic Reporting (Proposal Eleven), October 14, 2015.

⁴ Public Representative Motion for Issuance of Information Request, October 23, 2015 (PR Motion).

⁵ Chairman’s Information Request No. 1, October 30, 2015.

⁶ Responses of The United States Postal Service to Questions 1-9 of Chairman’s Information Request No. 1, November 6, 2015.

⁷ Initial Comments of the Public Representative, November 24, 2015 (PR Comments).

⁸ Reply Comments of the United States Postal Service Regarding Proposal Eleven, December 7, 2015 (Reply Comments).

mail to the RPW report.⁹ *Id.* Currently, ODIS-RPW data collectors travel to certain Mail Exit Points (MEPs) on randomly selected days and manually sample mail as it arrives at these locations. *Id.* These data collectors record mail characteristics from the sampled mailpieces, such as revenue, volume, weight, mail class, subclass, and indicia. *Id.*

III. PROPOSAL ELEVEN

Under Proposal Eleven, beginning Q2 of FY 2016 (January 1, 2016), the Postal Service seeks to replace the direct expansion estimator for the population of digitally sampled First-Class letter and card mail¹⁰ within the ODIS-RPW with a ratio estimator that utilizes national End-of-Run machine counts. Petition at 1-2. The Postal Service states that “[t]he digital letter mail estimates utilizing the ratio estimator applied to the digital letter mail sampling frame would be combined with direct expansion estimates from the non-digital sampling frame.” *Id.* at 2. The Postal Service contends the proposed ratio estimator for the letter mail digital sampling frame mathematically outperforms the direct expansion estimator for First-Class Mail single-piece volume and revenue. *Id.*

The Postal Service plans to implement the change described in Proposal Eleven on January 1, 2016. *Id.* at 3. The Postal Service asserts that the proposed estimation methodology of the ratio estimator is an improvement over the direct expansion estimator and will improve the product estimates used for RPW by reducing bias and significantly lowering the calculated coefficient of variation (CV) for the same sample size. *Id.* The Postal Service states that “[t]he only significant category affected is First-Class Mail single piece letters and cards.” *Id.* at 4.

⁹ The RPW report is filed with the Commission in accordance with 39 C.F.R. § 3050.25.

¹⁰ See Docket No. RM2015-11, Order on Analytical Principles Used in Periodic Reporting (Proposal Three), September 30, 2015 (Order No. 2739).

IV. COMMENTS

The Public Representative and the Postal Service were the only parties to file comments or reply comments on Proposal Eleven.

The Public Representative generally supports the proposal,¹¹ but outlines three areas where the proposal is unclear. She states that there needs to be further clarification on the nature and proposed stratification of MEPs into five Business Delivery Point (BDP) groups, and identifies discrepancies in the equation the Postal Service uses to demonstrate the efficacy of the ratio estimator over the expansion estimator. *Id.* at 3-4. To ensure compliance with 39 C.F.R. § 3050.11, she suggests that the Postal Service provide the Commission with estimates of the impact of the change in estimator on reported postal volumes and revenue per piece. *Id.* at 6.

In its Reply Comments, the Postal Service responds to each of the issues raised by the Public Representative. The Postal Service states that it cannot yet fully identify the proposed stratification of certain MEPs because the address management system lacks sufficient data on the 20 zones comprising the BDP Stratum “Box and Highway Delivery Points Only.” Reply Comments at 1. As more data become available, these zones will be incorporated into the other four BDP groups. *Id.* at 1-2. The Postal Service also acknowledges that the discrepancies in the equation are a typographical error, and confirms that the equation conforms with the cited statistical source. *Id.* at 2. Finally, the Postal Service provides the estimated volume and confidence intervals for both the ratio estimator and expansion estimator and notes that the estimates are not statistically different because the confidence intervals substantially overlap. *Id.* at 4.

V. COMMISSION ANALYSIS

The Commission finds that this proposal builds on the opportunities presented by digital sampling, the subject of Order No. 2739,¹² by creating a new stratification system

¹¹ See PR Comments at 3.

¹² See *generally* Order No. 2739.

and developing a ratio estimator for the number of pieces originating from digitally sampled zones.

The proposed system optimizes the comprehensive digital sampling stratifying zones by the proportion of BDPs instead of by reference volumes. By using business point stratification, the Postal Service can aggregate samples over different sample areas to form more homogenous strata. This will allow the Postal Service to create more precise volume estimates. Therefore, the Commission finds that the adoption of this new stratification method will improve the accuracy, quality, and completeness of ODIS-RPW data.

The proposed ratio estimator improves on the digital sampling method approved in Order No. 2739 by comparing sampled pieces to End-of-Run machine counts to estimate total number of pieces by product, instead of scaling up based on total volume estimates. This proposed estimator produces CVs well below 0.02. Petition at 9. CVs below this level suggest “reasonably low variability” in the estimates.¹³ Additionally, the highly coincident confidence intervals between the ratio estimator and the expansion estimator provided by the Postal Service suggest a consistency between the two methods and the lower CV indicates more precise estimates. For these reasons, the Commission approves the use of the proposed ratio estimator, and finds that its adoption is likely to improve the accuracy, quality, and completeness of ODIS-RPW data.

¹³ Andreas Oranje, ETS Research Report, Jackknife Estimation of Sampling Variance of Ratio Estimators in Complex Samples: Bias and the Coefficient of Variation, June 2006, at 12.

VI. ORDERING PARAGRAPH

It is ordered:

For purposes of periodic reporting to the Commission, the Commission approves the change in analytical principles proposed by the Postal Service in Proposal Eleven as set forth in the body of this Order.

By the Commission.

Stacy L. Ruble
Secretary